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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,147	06/05/2001	Michael J. Siwinski	82686THC	6252

7590 12/09/2005

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EXAMINER	
DHARIA, PRABODH M	

ART UNIT	PAPER NUMBER
2673	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/874,147	SIWINSKI, MICHAEL J.	
	Examiner	Art Unit	
	Prabodh M. Dharia	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06-05-01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. **Status:** Receipt is acknowledged of papers submitted on 04-28-2005 under request for reconsideration have been placed of record in the file. Claims 1-10 are pending in this action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,4,6,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. (6,472,804 B2) in view of Wilson (6,507,350) and Kubes et al. (6,035,180).

Regarding Claim 1,6 Mueller et al. teaches a method of saving power in a color organic electroluminescent display of the type having color emitting elements with different light emitting efficiencies (Col. 3, Lines 50-55, Col. 4, Lines 4-7).

However, Mueller et al. fails to recite or disclose a) determining the color of the elements having the highest efficiency; b) converting a color digital image to be displayed on the display to a monochrome image; and c) displaying the monochrome image using the determined color elements.

However, Wilson teaches a method of saving power in a color organic electroluminescent display (Col.1, Lines 25-28 OLED as an OEL display), comprising the steps of: a) determining the color of the elements having the highest efficiency (Col. 3, Lines 4-14, Lines 27-32 discusses chrominance data representing color data and efficiency and adding luminance to represent as

pixel data to be displayed per efficiency); b) converting a color digital image to be displayed on the display to a monochrome image (Col. 5, Lines 25-48); and c) displaying the monochrome image using the determined color elements (Col. 6, Lines 18-33, Col. 5, Lines 25-48).

Since Mueller et al. specifically teach a) determining the color of the elements having the highest efficiency; b) converting a color digital image to be displayed on the display to a monochrome image; and c) displaying the monochrome image using the determined color elements; it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Wilson's teaching a monochrome display saving power by converting digital video signal in to monochrome color signal and displaying on monochrome display (Col. 6, Lines 18-33, Col. 5, Lines 25-48).

Mueller et al. teaches a method of saving power in a color organic electroluminescent display of the type having color emitting elements with different light emitting efficiencies (Col. 3, Lines 50-55, Col. 4, Lines 4-7).

However, Mueller et al. fails to recite or disclose determining the color of the elements having the highest efficiency.

However, Kubes et al. teaches color organic electroluminescent display (Col. 2, Lines 4-23) a) determining the color of the elements having the highest efficiency (Col. 10, Lines 28-31).

Although neither Mueller et al. nor Wilson specifically teach using the light emitting element having the highest light emitting efficiency, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the element having the highest light emitting efficiency, specifically the organic EL green/yellow as taught by Kubes, color organic

electroluminescent display (Col. 2, Lines 4-23) a) determining the color of the elements having the highest efficiency (Col. 10, Lines 28-31).

Regarding Claim 4,9 Kubes et al. teaches the display has red, green, and blue light emitting elements and the determined color is green (Col. 10, Lines 28-32).

4. Claims 2,3,7,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. (6,472,804 B2) in view of Wilson (6,507,350) and Kubes et al. (6,035,180) as applied to claims 1,4,6,9 above, and further in view of Gettemy et al. (6,603,469 B1).

Regarding Claim 2, 7, Mueller et al. modified by Wilson and Kubes et al. teaches a method of saving power in a color organic electroluminescent display of the type having color emitting elements with different light emitting efficiencies (Col. 3, Lines 50-55, Col. 4, Lines 4-7).

However, Mueller et al. modified by Wilson and Kubes et al. fails to recite or disclose the display is in a battery powered device, and further comprising the step of monitoring the power level of the battery, and converting to a power saving mode of operation when the battery power reaches a predetermined level.

However, Gettemy teaches the display is in a battery powered device, and further comprising the step of monitoring the power level of the battery, and converting to a power saving mode of operation when the battery power reaches a predetermined level (Col. 2, Lines 16-19, Col. 7, Lines 27-47, Col. 8, Lines 27-56 and figure 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the power saving method as taught by Gettemy with the electroluminescent display and method as taught by Mueller et al. modified by Wilson and Kubes et al. to reduce battery power consumption in a portable electronic device. Gettemy invites such combination by teaching, "It would be desirable to provide an electronic device that offered a color display but also managed the device's battery life in an intelligent manner." Gettemy, col. 1, lines 60 – 63. See also Gettemy, col. 1, lines 15 – 55. Gettemy invites one in the art to consider the display taught by Mueller et al. modified by Wilson and Kubes et al. by teaching, "It is appreciated that any multi-mode display device can be used by the present invention where color display consumes more energy than the monochrome device." Gettemy, col. 9, lines 26 – 29.

Regarding Claim 3, 8, Gettemy teaches the steps of: providing a battery saving mode switch on a device that includes the color organic electroluminescent display, and switching to a battery saving mode using the mode switch (Col. 2, Lines 64-67, Col. 7, Lines 27-47, Col. 8, Line 53, Col. 9, Line 17 and figure 9, 10).

5. Claims 5,10 rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. (6,472,804 B2) in view of Wilson (6,507,350) and Kubes et al. (6,035,180) as applied to claims 1.4.6.9 above, and further in view of Hill, Jr. (5,790,096).

Regarding Claim 5,10 Mueller et al. modified by Wilson and Kubes et al. teaches a method of saving power in a color organic electroluminescent display of the type having color emitting elements with different light emitting efficiencies (Col. 3, Lines 50-55, Col. 4, Lines 4-7).

However, Mueller et al. modified by Wilson and Kubes et al. fails to recite or disclose the step of converting a color digital image to a monochrome digital image comprises combining {fraction (5/16)}, {fraction (9/16)}, and {fraction (2/16)} of the red, green and blue color signals, respectively.

However, Hill, Jr. teaches the step of converting a color digital image to a monochrome digital image comprises combining {fraction (5/16)}, {fraction (9/16)}, and {fraction (2/16)} of the red, green and blue color signals, respectively (Col. 7, Lines 20-34, Table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the weighting factors as taught by Hill with the electroluminescent display as taught by Mueller et al. modified by Wilson and Kubes et al. to implement the properly balanced monochrome image. Hill invites such combination by teaching, "In a further aspect of the invention, full color images may be reduced to a plural bit grey scale for display on a monochrome screen" (Col. 2, lines 58 – 60).

Response to Arguments

6. Applicant's arguments with respect to claims 1,6, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cok et al. (6,320,325 B1) Emissive display with luminance feeback from a representative pixel.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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November 29, 2005

VIJAY SHANKAR
PRIMARY EXAMINER